

IN THE CLAIMS

Upon entry of the present amendment, the status of the claims will be as is shown below.

This listing of claims replaces all previous versions and listings of claims in the present application.

Claims 1-13 (Cancelled)

14. (Currently Amended) A method of preparing a program for a punch press, wherein said punch press is provided with a punch supporting member that supports a plurality of punches, a die supporting member that supports a plurality of dies corresponding to said punches and a tool storage device that stores the plurality of punches and the plurality of dies; and identification media to identify each tool are attached respectively on each of said punches and each of said dies;

said punch press is provided with a punch identification medium reader that reads out a punch identification information from a punch identification medium attached to said punch and a die identification medium reader that reads out a die identification information from a die identification medium attached to said die;

wherein said program preparing method prepares said program by feeding a plurality of punch identification information and a plurality of die identification information from said respective identification medium readers back to an automatic programming apparatus and by allotting a plurality of punches ~~punch~~-existing on said punch supporting member and a plurality of dies ~~die~~-existing on said die supporting member to a workplace region to be processed such that a total number of replacements of punches in said punch supporting member and dies in said die supporting member is minimized,

said program preparing method comprising:

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identifying punches mounted on the punch support member and dies mounted on the die support member;

generating an NC program for the punch press by selecting a punch mounted on the punch support member and a die mounted on the die support member;

identifying a punch and a die stored in the tool storage device and selected in generating the NC program; and

generating a program for replacement of the punch and die mounted on the support members with the punch and die stored in the tool storage device and selected in generating the NC program,

wherein the NC program is generated by selecting a maximum number of tools currently mounted for use such that tools of the selected maximum number of tools currently mounted will not require replacement.

Claims 15-20 (Cancelled)

21. (Previously Presented) The method of preparing a program for a punch press of claim 14, wherein said program preparing method further maximizes an efficiency.

22. (Currently Amended) The method of preparing a program for a punch press of claim 21, wherein the maximized efficiency of the program preparing method is determined by minimizing ~~the~~ a total number of punch replacements and die replacements offset by maximizing a measure of ~~the~~ flatness of ~~the~~ a finished surface.

23. (Currently Amended) The method of preparing a program for a punch press of claim 21, wherein the maximized efficiency of the program preparing method is determined by minimizing ~~the~~ a total number of replacements of punches and dies offset by minimizing a tact time.

24. (Currently Amended) The method of preparing a program for a punch press of claim 21, wherein the maximized efficiency of the program preparing method is determined by minimizing ~~the~~ a total number of replacements of punches and dies offset by minimizing the number of punches required to obtain a fine finish.

Claims 25-41 (Cancelled)